

IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

Please replace the paragraph on page 14, lines 11-23 with the following amended paragraph:

The attenuators 97A-97F will preferably have a dynamic range of approximately 30 dB, and should be capable of being adjusted in 1 dB increments. In this way the beam projected to a particular coverage area may be gradually extinguished, and then gradually established once again, during a transition between sector configurations. For example, if it were desired to modify the scope of the first user sector so that it included only coverage areas C3-C4 rather than C2-C4, attenuator 97B would be incrementally adjusted from zero to maximum attenuation. Assuming it were desired to simultaneously increase the scope of the second user sector, the setting of an attenuator (not shown) connected between the second antenna driver 76 and the splitter 68 sector would contemporaneously be changed from maximum to zero attenuation. The digital attenuators 97A-97F are of a type available from, for example, ANZAC CORP. ~~Amac~~ Corp., such as Part No. AT-210.

Please replace the paragraph starting on page 18, line 23 and ending on page 19, line 6 with the following amended paragraph:

IV. Dynamic Sectorization within a CDMA System

Referring to FIG. 7, there is shown a block diagrammatic representation of a spread spectrum transmitter suitable for realizing the spread spectrum transmitters 42, 44 and 46 (FIG. 2). The spread spectrum transmitter of FIG. 7 is of the type described in U.S. Pat. No. 5,103,459, issued 1992, entitled "System and Method for Generating Signal Waveforms in a CDMA Cellular Telephone System", which is assigned to the assignee of the present invention, and which is herein incorporated by reference. In the transmitter of FIG. 7, data bits 300 consisting of, for example, voice converted to data by a vocoder, are supplied to an encoder 302 where the bits are convolutionally encoded with code symbol repetition in accordance with the input data rate. When the data bit rate is less than the bit processing rate of the encoder 302, code symbol

repetition dictates that encoder 302 ~~repeat~~ repeats the input data bits 300 in order to create a repetitive data stream at a bit rate which matches the operative rate of encoder 302. The encoded data is then provided to interleaver 304 where it is interleaved. The interleaved symbol data is output from interleaver 304 at an exemplary rate of 19.2 kbps to an input of exclusive-OR 306.

Please replace the paragraph on page 20, line 28 to page 21, line 5 with the following amended paragraph:

Referring to FIG. 8, a pilot generation network 330 includes a Walsh generator 340 for providing the Walsh "zero" W_0 sequence consisting of all zeroes to exclusive-OR combiners 344 and 346. The Walsh sequence W_0 is multiplied by the PN_1 and PN_0 sequences supplied by PN_1 generator 347 and PN_0 generator 348 using the exclusive-OR combiners 344 and 346, respectively. Since the sequence W_0 includes only zeroes, the information content of the resultant sequences depends only upon the PN_1 and PN_0 sequences. The sequences produced by exclusive-OR combiners 344 and 346 are provided as inputs to Finite Impulse Response Filters (FIR) filters 350 and 352. The filtered sequences output from FIR filters 350 and 352, respectively corresponding to I-channel and Q-channel pilot sequences P_1 and P_0 , are supplied to the RF transmitter 382.

Please replace the paragraph on page 21, lines 6-18 with the following amended paragraph:

Referring to FIG. 9, there is shown an exemplary implementation of the RF transmitter 382. Transmitter 382 includes an I-channel summer 370 for summing the $PN_{sub.I}$ spread data signals $S_{sub.Ii}$, $i=1$ to N , with the I-channel pilot $P_{sub.I}$. Similarly, a Q-channel summer 372 serves to combine the $PN_{sub.Q}$ spread data signals $S_{sub.Qi}$, $i=1$ to N , with the Q-channel pilot $P_{sub.I}$. Digital to analog (D/A) converters 374 and 376 are provided for converting the digital information from the I-channel and Q-channel summers 370 and 372, respectively, into analog form. The analog waveforms produced by D/A converters 374 and 376 are provided along with local oscillator (LO) carrier frequency signals $\cos(2\pi f t)$ $\cos(2\pi f t)$ and $\sin(2\pi f t)$ $\sin(2\pi f t)$, respectively, to mixers 388 and 390, where they are mixed and provided to summer 392. The

quadrature phase carrier signals $\sin(2\pi \cdot 900 \text{ ft})$ and $\cos(2\pi \cdot 900 \text{ ft})$ are provided from suitable frequency sources (not shown). These mixed IF signals are summed in summer 392 and provided to mixer 394.

Please replace the paragraph on page 25, lines 5-11 with the following amended paragraph:

Alternately, a phased array antenna may be used to simultaneously form more than a single beam. For example, FIG. 14 shows a triangular arrangement of first, second and third phased array antenna panels 480, 482 and 484, which collectively operate to provide a set of nine antenna beams to coverage areas C1-C9. In particular, antenna panel 480 projects three 40-degree fixed-beams to coverage areas ~~C1-C3~~ C1, C2 and C9, while antenna panels 484 and 482 project 40-degree fixed-beams to coverage areas ~~C4-C6~~ C3-C5, and ~~C7-C9~~ C6-C8, respectively.

Please replace the paragraph on page 25, lines 12-18 with the following amended paragraph:

As is indicated by FIG. 15, in a preferred implementation the face of each antenna panel includes a 4.times.4 array of patch elements, the elements within each column being respectively identified by the reference numerals 486-489. Assuming an RF carrier frequency of 850 MHz, each patch element may be fabricated from a square section of dielectrically-loaded patch material of area 4 in.sup.2. This results in each square antenna panel ~~482-484~~ 480-484 (FIG. 14) being of an area of approximately 4 sq. ft.

Please replace the paragraph on page 25, lines 19-30 with the following amended paragraph:

Referring to FIG. 16, there is shown a phased array antenna and beam-forming network 490 disposed to provide three beams from a single antenna face. A switch matrix (not shown) provides the information signals corresponding to user sectors #1, #2 and #3 via input signal lines 494A-494C. The beam-forming network 490 includes 4-way splitters 495A-495C, respectively connected to signal lines 494A-494C. The four outputs from each splitter 495A-

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495C are connected via phase delay elements 496 to one of four summation nodes ~~498-500 and 502 498-504~~. The composite signals from summation nodes 498-501 are respectively provided to power amplifiers 504-507. As is indicated by FIG. 16, each column of array elements 486-489 is driven by one of the amplifiers 504-507. In alternate implementations, a separate power amplifier is utilized to drive each array element 486-489.